09480500 SANTA CRUZ RIVER NEAR NOGALES, AZ

LOCATION.--Lat 31°20'40", long 110°51'03", in NW1/4 sec. 18, T.24 S., R.15 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, in Spanish land grant of Maria Santisima del Carmen, on left bank 0.8 mi downstream from international boundary and 5.5 mi east of Nogales.

DRAINAGE AREA.--533 mi^2, of which 348 mi^2 is in Mexico.

PERIOD OF RECORD.--Mar. to Nov. 1907 and Apr. 1909 to Dec. 1912 (discharge measurements and fragmentary gage-height record), Jan. 1913 to June 1922 (Oct. 1915 to Sept. 1916 monthly discharge only), May 1930 to Dec. 1933, July 1935 to current year. Water-year estimates for 1913, 1915–16, 1920–22, 1930, 1934–35, published in WSP 1733.

REVISED RECORDS.--WSP 959: 1935(M). WSP 1213: 1915–16, 1930–32(M), 1934(M), 1936–37(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,702.54 ft above sea level (levels by International Boundary and Water Commission). Prior to June 30, 1922, nonrecording gage or water-stage recorder at various sites 5 to 6 mi downstream at different datums.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Diversions above station of about 4,300 acre-ft/yr for irrigation of about 2,150 acres in Mexico in 1977. Diversion 19 mi upstream for municipal supply of city of Nogales, Sonora, began in 1949; diversion in 1968 totaled 3,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft^3/s Oct. 9, 1977, gage height, 15.5 ft, from rating curve extended above 1,660 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 24.....	1645	*2,310	*5.33

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e53	0.20
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e168	0.20
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54	0.15
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39	0.03
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36	0.01
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39	8.9
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.7	26
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.53
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64	0.30
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105	e0.15
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	121	e0.14
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53	e0.16
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.9	0.29
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.3	0.33
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	e37	0.33
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e9.1	0.30
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.5	0.22
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.4	0.23
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.3	0.17
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	e149	0.09
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207	34	0.03
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.7	2.3	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.17	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.21	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	e124	0.19	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	348.70	1122.17	38.92
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	11.2	36.2	1.30
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	207	168	26
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.9	692	2230	77
CFSM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.00
IN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2005, BY WATER YEAR (WY)

MEAN	26.1	9.97	32.5	38.6	31.4	22.7	7.65	1.74	1.26	38.1	81.9	24.4
MAX	904	164	542	492	370	318	58.1	16.8	24.4	254	745	158
(WY)	1978	2001	1979	1979	1985	1983	1992	1983	1984	1950	1955	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
(WY)	1914	1919	1919	1974	1974	1914	1914	1914	1914	1918	1991	1918

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1914 - 2005	
ANNUAL TOTAL	140.99		1510.77			
ANNUAL MEAN	0.39		4.14		25.8	
HIGHEST ANNUAL MEAN					123	1979
LOWEST ANNUAL MEAN					0.42	2004
HIGHEST DAILY MEAN	67	Jul 16	207	Jul 24	13200	Oct 9 1977
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1913
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1913
ANNUAL RUNOFF (AC-FT)	280		3000		18660	
ANNUAL RUNOFF (CFSM)	0.001		0.008		0.048	
ANNUAL RUNOFF (INCHES)	0.01		0.11		0.66	
10 PERCENT EXCEEDS	0.00		0.31		40	
50 PERCENT EXCEEDS	0.00		0.00		2.0	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated